

TITLE

## INTEIN-MEDIATED PROTEIN SPLICING

ABSTRACT

The present invention provides methods for intein-mediated protein  
5 splicing, particularly in plants. This permits *in vivo* and *in vitro* synthesis of  
homogeneous and large multi-functional hybrid protein polymers and  
circular proteins. Additionally, methods are provided which are suitable for  
the regulation of transgene expression, such that a particular transgene is  
expressed only under selected environmental conditions, in selected plant  
10 tissues, at selected development stages, or in selected plant generations.